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GROUP 3600

AMENDMENT

Please replace the claims with the following:

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1 1. (Twice Amended) A method for providing concurrency control for a  
2 policy-based management system that controls resources in a distributed  
3 computing system, the method comprising:  
4 receiving a request to perform an operation on a lockable resource from a  
5 controller in the distributed computing system, wherein the lockable resource  
6 presents one or more independent locks providing access to independent sub-units  
7 of the resource and wherein the one or more independent locks allow multiple  
8 controllers to lock independent sub-units of the lockable resource independently;  
9 wherein the controller sends the request in order to enforce a first policy  
10 for controlling resources in the distributed computing system;  
11 determining whether the controller holds a lock on the lockable resource;  
12 allowing the controller to execute the operation on the lockable resource if  
13 the controller holds the lock on the lockable resource;  
14 allowing the controller to acquire the lock if the controller does not hold  
15 the lock on the lockable resource; and  
16 allowing the controller to execute the operation on the lockable resource if  
17 the controller acquires the lock.

1 2. (Unchanged) The method of claim 1, wherein the first policy is  
2 configured to command resources in the distributed computing system to perform  
3 actions so that the distributed computing system operates in accordance with a  
4 rule that is enforced by the first policy, wherein the rule governs behavior of  
5 resources within the distributed computing system.

1           3. (Unchanged) The method of claim 1, further comprising throwing an  
2 exception if the controller does not hold the lock on the lockable resource and if  
3 the controller does not acquire the lock.

1           4. (Unchanged) The method of claim 1, wherein the lock held on the  
2 lockable resource expires after a pre-specified lease period, unless the lease is  
3 renewed within the pre-specified lease period.

1           5. (Unchanged) The method of claim 1, wherein the lockable resource  
2 includes a resource within the distributed computing system.

1           6. (Unchanged) The method of claim 1, wherein the lockable resource  
2 includes a second policy for controlling resources in the distributed computing  
3 system.

1           7. (Unchanged) The method of claim 1, wherein the controller includes a  
2 client in the distributed computing system.

1           8. (Unchanged) The method of claim 1, wherein the controller includes the  
2 first policy for controlling resources in the distributed computing system.

1           9. (Unchanged) The method of claim 1, wherein the controller includes a  
2 higher-level policy for controlling resources in the distributed computing system,  
3 and wherein the lockable resource includes a lower-level policy for controlling  
4 resources in the distributed computing system.

1           10. (Unchanged) The method of claim 1, wherein allowing the controller  
2 to acquire the lock includes allowing the controller to acquire the lock from a  
3 resource that allocates locks to controllers.

**Claim 11 was previously cancelled without prejudice.**

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1           12. (Twice Amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a  
3 method for providing concurrency control for a policy-based management system  
4 that controls resources in a distributed computing system, the method comprising:  
5           receiving a request to perform an operation on a lockable resource from a  
6 controller in the distributed computing system, wherein the lockable resource  
7 presents one or more independent locks providing access to independent sub-units  
8 of the resource and wherein the one or more independent locks allow multiple  
9 controllers to lock independent sub-units of the lockable resource independently;  
10          wherein the controller sends the request in order to enforce a first policy  
11 for controlling resources in the distributed computing system;  
12          determining whether the controller holds a lock on the lockable resource;  
13          allowing the controller to execute the operation on the lockable resource if  
14 the controller holds the lock on the lockable resource;  
15          allowing the controller to acquire the lock if the controller does not hold  
16 the lock on the lockable resource; and  
17          allowing the controller to execute the operation on the lockable resource if  
18 the controller acquires the lock.

1           13. (Unchanged) The computer-readable storage medium of claim 12,  
2 wherein the first policy is configured to command resources in the distributed  
3 computing system to perform actions so that the distributed computing system

4 operates in accordance with a rule that is enforced by the first policy, wherein the  
5 rule governs behavior of resources within the distributed computing system.

1 14. (Unchanged) The computer-readable storage medium of claim 12,  
2 wherein the method further comprises throwing an exception if the controller does  
3 not hold the lock on the lockable resource and if the controller does not acquire  
4 the lock.

1 15. (Unchanged) The computer-readable storage medium of claim 12,  
2 wherein locks held by the controller expire after a pre-specified lease period,  
3 unless the lease is renewed within the pre-specified lease period.

1 16. (Twice Amended) An apparatus that provides concurrency control  
2 within a policy-based management system that controls resources in a distributed  
3 computing system, the apparatus comprising:

4 a receiving mechanism that receives a request to perform an operation on a  
5 lockable resource from a controller in the distributed computing system, wherein  
6 the lockable resource presents one or more independent locks providing access to  
7 independent sub-units of the resource and wherein the one or more independent  
8 locks allow multiple controllers to lock independent sub-units of the lockable  
9 resource independently;

10 wherein the controller sends the request in order to enforce a first policy  
11 for controlling resources in the distributed computing system;

12 a determining mechanism that determines whether the controller holds a  
13 lock on the lockable resource;

14 an execution mechanism that is configured to,

15 allow the controller to acquire the lock if the controller  
16 does not hold the lock on the lockable resource, and to

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Cont'd

17 allow the controller to execute the operation on the lockable  
18 resource if the controller holds the lock on the lockable resource.

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1 17. (Unchanged) The apparatus of claim 16, wherein the first policy is  
2 configured to command resources in the distributed computing system to perform  
3 actions so that the distributed computing system operates in accordance with a  
4 rule that is enforced by the first policy, wherein the rule governs behavior of  
5 resources within the distributed computing system.

1 18. (Unchanged) The apparatus of claim 16, wherein the execution  
2 mechanism is configured to throw an exception if the controller does not hold the  
3 lock on the lockable resource and if the controller does not acquire the lock.

1 19. (Unchanged) The apparatus of claim 16, wherein the lock on the  
2 lockable resource expires after a pre-specified lease period, unless the lease is  
3 renewed within the pre-specified lease period.

1 20. (Unchanged) The apparatus of claim 16, wherein the lockable resource  
2 includes a resource within the distributed computing system.

1 21. (Unchanged) The apparatus of claim 16, wherein the lockable resource  
2 includes a second policy for controlling resources in the distributed computing  
3 system.

1 22. (Unchanged) The apparatus of claim 16, wherein the controller  
2 includes a client in the distributed computing system.

1           23. (Unchanged) The apparatus of claim 16, wherein the controller  
2 includes the first policy for controlling resources in the distributed computing  
3 system.

1           24. (Unchanged) The apparatus of claim 16, wherein the controller  
2 includes a higher-level policy for controlling resources in the distributed  
3 computing system, and wherein the lockable resource includes a lower-level  
4 policy for controlling resources in the distributed computing system.

1           25. (Unchanged) The apparatus of claim 16, wherein the execution  
2 mechanism is configured to allow the controller to acquire the lock from a  
3 resource that allocates locks to controllers.

**Claim 26 was previously cancelled without prejudice.**